# Step-by-step User's Guide:
## How to Use EPICS VME/ControlNet Interface Support Module

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1. **Setup 5136-CN-VME module**
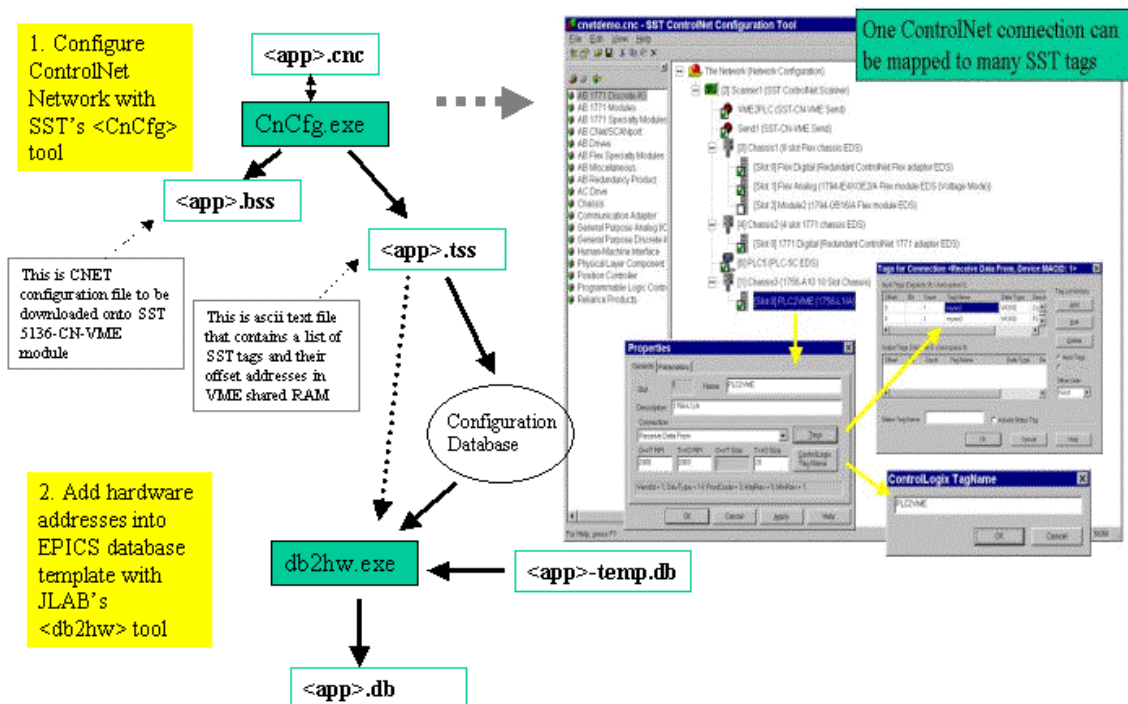   With SST "5136-CN-VME User's Guide",
   - Setting the short I/O base address by setting the switches: S1, S2 (Demo uses 8000h)
   - Setting the jumpers: JP1 – JP4 (Demo uses "Running from Flash")
   - Six short I/O registers will be set by this software (the driver)

2. **Configure ControlNet Networks**
   With SST "CnCfg.exe" ControlNet configuration tool (and Rockwell Software "RSNetWorx" tool, if PLC5c or ControlLogix Processor presences in your application Network), configure your ControlNet Networks. (For details of how to configure a ControlNet network, refer www.sns.bnl.gov/epics/cnet )



### Using SST tags to map EPICS record addresses

*Using SST tags to map EPICS database addresses*
Your application ControlNet network configuration file is saved as, <app>.cnc in the figure above.
The "CnCfg.exe" will produce two additional files: <app>.bss and <app>.tss

- <app>.bss contains the application ControlNet network configuration information, which will be downloaded onto the SST VME module. (Refer SST VME module user manual)
- <app>.tss contains a list of defined SST tags and their offset addresses, which will be used to configure EPICS database records.

## 3. Install "CNET" driver as a support application

Note: APS or SNS Application Development Environment is used as a reference here.

- Untar the package under <ADE>/<EPICS-version>/support/cnet-<version>
- Modify …/cnet-<version>/config/RELEASE
- cd …/cnet-<version>/ ; make

## 4. IOC Application Installation for using CNET support application

i.  Edit the `config/RELEASE` file and add the line

```
CNET=<path-to-cnet>/version
```

ii.  Edit the `config/CONFIG_APP` file and add the following lines.

```
ifdef CNET
USR_INCLUDES += -I$(CNET)/include
CNET_BIN = $(CNET)/bin/$(T_A)
USER_DBDFLAGS += -I $(CNET)/dbd
```

endif

iii.  In the application source directory where the base object files are linked together, edit `Makefile.Vx` and add

```
LIBOJBS += $(CNET_BIN)/CNETLib
```

iv.  Ensure the following is included in the construction of the application's database definition file

```
include "drvControlNet.dbd"
```

v.  Rebuild the application and use the newly installed support as desired